Claims

10

15

1. A blue colored dye mixture which contains from 10 to 60 wt% with respect to the total pigment fraction of a blue pigment which is a mixture of the two isomers which can be represented by structural formula [1]

wherein one of X<sup>1</sup> and X<sup>2</sup> represents NO<sub>2</sub> and the other represents OH, from 60 to 10 wt% with respect to the total pigment fraction of a blue pigment which can be represented by structural formula [2]

wherein  $R^1$  represents  $-C_3H_6OCH_3$ ,  $-C_3H_6OC_2H_5$  or  $-C_3H_6OC_2H_4OCH_3$ , from 10 to 30 wt% with respect to the total pigment fraction of the blue pigment which can be represented by structural formula [3]

WO 2005/005552 PCT/EP2004/007021 27

and from 20 to 0 wt% with respect to the total pigment fraction of a blue pigment which can be represented by structural formula [4]

- wherein R<sup>2</sup> represents a hydrogen atom or a C<sub>1</sub> or C<sub>2</sub> alkyl group, and R<sup>3</sup> represents a hydrogen atom, a C<sub>1</sub> or C<sub>2</sub> alkyl group or a C<sub>1</sub> or C<sub>2</sub> alkoxy C<sub>1</sub> or C<sub>2</sub> alkyl group.
- 2. A dye composition in which, in a blue dye mixture according to claim 1, thereis compounded a yellow dye mixture and/or a red dye mixture,wherein

the yellow dye mixture contains from 25 to 75 wt% with respect to the whole pigment fraction of the yellow pigment which can be represented by structural formula [5]

from 60 to 20 wt% with respect to the whole pigment fraction of the yellow pigment which can be represented by structural formula [6]

15

5

$$O_gN$$

$$C_gH_4OH$$

$$C_gH_4OH$$

and from 15 to 5 wt% with respect to the whole pigment fraction of the yellow pigment which can be represented by structural formula [7]

and the red dye mixture contains from 30 to 60 wt% with respect to the whole pigment fraction of a red pigment which can be represented by structural formula [8]

wherein R<sup>4</sup> represents a C<sub>1</sub> to C<sub>3</sub> alkoxy C<sub>1</sub> to C<sub>3</sub> alkyl group, from 70 to 20 wt% with respect to the whole pigment fraction of the red pigment which can be represented by the structural formula [9]

and from 0 to 20 wt% with respect to the whole pigment fraction of a red pigment which can be represented by structural formula [10] WO 2005/005552 PCT/EP2004/007021 29

wherein R<sup>5</sup> represents a hydrogen atom, a chlorine atom or a bromine atom, or [11]

5

wherein one of R<sup>6</sup> and R<sup>7</sup> is a hydrogen atom and the other is hydroxyethoxyethyl, hydroxybutoxypropyl, acetoxyethoxyethyl or acetoxybutoxypropyl.

10

15

- 3. A method of dyeing polyester-based fibers in which a blue dye mixture as disclosed in claim 1 or a dye composition as disclosed in claim 2 is used.
- 4. A dyed polyester-based fiber material which has been dyed using a blue dye mixture as disclosed in claim 1 or a dye composition as disclosed in claim 2.
  - 5. A method of dyeing polyester-based fibers according to claim 3 in which the polyester-based fibers are mixed fibers of different fineness
- 20 6. A dyed polyester-based fiber material according to claim 4 in which the polyester-based fibers are mixed fibers of different fineness.

WO 2005/005552 PCT/EP2004/007021 30

- 7. A method of dyeing polyester-based fibers according to claim 3 in which the polyester-based fibers are mixed fibers comprising polyester-based fibers which can be dyed with a cationic dye and regular polyester-based fibers.
- 8. A dyed polyester-based fiber material according to claim 4 in which the polyester-based fibers are mixed fibers comprising polyester-based fibers which can be dyed with a cationic dye and regular polyester-based fibers.